

**METHOD, APPARATUS AND COMPUTER PROGRAM PRODUCT FOR  
IMPLEMENTING ATOMIC DATA TRACING**

Abstract of the Disclosure

5           A method, apparatus and computer program product are provided for  
implementing atomic data tracing in a processor system including an  
auxiliary processor unit (APU) coupled to a central processor unit (CPU).  
The auxiliary processor unit (APU) processes a trace instruction. When a  
trace instruction is identified by the APU, the APU signals the CPU with a  
pipeline stall signal for stalling the CPU and checks for an enabled trace  
10       engine as specified by the trace instruction. When the trace engine for the  
trace instruction is enabled, then the trace data is written into a trace buffer.  
The APU signals the CPU with an op done signal for allowing the CPU to  
continue with instruction processing.